

## DEPARTMENT OF REGULATORY AND ECONOMIC RESOURCES (RER) BOARD AND CODE ADMINISTRATION DIVISION

MIAMI-DADE COUNTY PRODUCT CONTROL SECTION

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## **NOTICE OF ACCEPTANCE (NOA)**

Allied Building Products Corp. dba TRI-BUILT Materials Group 15 East Union Avenue East Rutherford, NJ 07073

#### **SCOPE:**

This NOA is being issued under the applicable rules and regulations governing the use of construction materials. The documentation submitted has been reviewed and accepted by Miami-Dade County RER - Product Control Section to be used in Miami Dade County and other areas where allowed by the Authority Having Jurisdiction (AHJ).

This NOA shall not be valid after the expiration date stated below. The Miami-Dade County Product Control Section (In Miami Dade County) and/or the AHJ (in areas other than Miami Dade County) reserve the right to have this product or material tested for quality assurance purposes. If this product or material fails to perform in the accepted manner, the manufacturer will incur the expense of such testing and the AHJ may immediately revoke, modify, or suspend the use of such product or material within their jurisdiction. RER reserves the right to revoke this acceptance, if it is determined by Miami-Dade County Product Control Section that this product or material fails to meet the requirements of the applicable building code.

This product is approved as described herein, and has been designed to comply with the Florida Building Code including the High Velocity Hurricane Zone of the Florida Building Code.

## **DESCRIPTION: TRI-BUILT Modified Bitumen Roof System Over Concrete Decks**

**LABELING:** Each unit shall bear a permanent label with the manufacturer's name or logo, city, state and following statement: "Miami-Dade County Product Control Approved", unless otherwise noted herein.

**RENEWAL** of this NOA shall be considered after a renewal application has been filed and there has been no change in the applicable building code negatively affecting the performance of this product.

**TERMINATION** of this NOA will occur after the expiration date or if there has been a revision or change in the materials, use, and/or manufacture of the product or process. Misuse of this NOA as an endorsement of any product, for sales, advertising or any other purposes shall automatically terminate this NOA. Failure to comply with any section of this NOA shall be cause for termination and removal of NOA.

**ADVERTISEMENT:** The NOA number preceded by the words Miami-Dade County, Florida, and followed by the expiration date may be displayed in advertising literature. If any portion of the NOA is displayed, then it shall be done in its entirety.

**INSPECTION:** A copy of this entire NOA shall be provided to the user by the manufacturer or its distributors and shall be available for inspection at the job site at the request of the Building Official.

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This renews NOA# 12-1213.13 and consists of pages 1 through 24. The submitted documentation was reviewed by Alex Tigera.



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## **ROOFING ASSEMBLY APPROVAL**

<u>Category:</u> Roofing

Sub-Category: Modified Bitumen

MaterialsSBS/APPDeck Type:ConcreteMaximum Design Pressure-622.5 psf

# TRADE NAMES OF PRODUCTS MANUFACTURED OR LABELED BY APPLICANT: TABLE 1

<b>Product</b>	<u>Dimensions</u>	Test Specification	Product <u>Description</u>
TRI-BUILT APP Smooth	32' 10" x 3' 3-3/8"	ASTM D 6222	Torch applied, polyester reinforced, APP modified bitumen membrane with a burn off polyethylene back face and a smooth or sanded top surface.
TRI-BUILT APP Granular	32' 10" x 3' 3-3/8"	ASTM D 6222	Torch applied, polyester reinforced, APP modified bitumen membrane with a burn off polyethylene back face and a granule top surface.
TRI-BUILT SBS Granular	32' 10" x 3' 3-3/8"	ASTM D 6164	Torch, hot asphalt or cold adhesive applied, polyester reinforced, SBS modified bitumen membrane with a burn off polyethylene or sanded back face and a granule top surface.
PG100 Asphalt Primer	1, 3, 5, 50, 55 gal, tube or 17 oz. spray can	ASTM D41	A penetrating solution of solvent and a blend of selected asphalts used to promote adhesion.



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## **APPROVED INSULATIONS:**

## TABLE 2

<u>Product Name</u>	<u>Product Description</u>	<u>Manufacturer</u> (With Current NOA)
ACFoam-III, ACFoam-III	Polyisocyanurate foam insulation	Atlas Roofing Corporation
High Density Wood Fiberboard	Wood fiber insulation board	Generic
Perlite Insulation	Perlite insulation board	Generic
DensDeck or DensDeck Prime	Gypsum insulation board	Georgia-Pacific Gypsum LLC
ENRGY-3	Polyisocyanurate foam insulation	Johns Manville Corporation
FescoBoard	Expanded mineral fiber	Johns Manville Corporation
Structodek High Density Fiberboard Roof Insulation	Wood fiber board	Blue Ridge Fiberboard, Inc.
H-Shield	Polyisocyanurate foam insulation	Hunter Panels, LLC
H-Shield CG	Polyisocyanurate/perlite composite insulation	Hunter Panels, LLC
Multi-Max-3, Multi-Max FA-3	Polyisocyanurate foam insulation	Rmax Operating, LLC
SECUROCK Gypsum-Fiber Roof Board	Fiber reinforced insulation board	United States Gypsum Corporation



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## **APPROVED FASTENERS:**

## TABLE 3

Fastener Number	<u>Product</u> <u>Name</u>	<u>Product</u> <u>Description</u>	<b>Dimensions</b>	<u>Manufacturer</u> (With Current NOA)
1.	Dekfast 14	Insulation fastener for wood, steel and concrete decks		SFS Intec, Inc.
2.	Dekfast Galvalume Steel Hex	Galvalume hex stress plate.	2 7/8" x 3 1/4"	SFS Intec, Inc.
3.	#14 & #15 Roofgrip	Insulation fastener for wood, steel and concrete decks.		OMG, Inc.
4.	3" Round Metal Plate	Galvalume stress plate.	3" round	OMG, Inc.
5.	Recessed Metal Plate	Galvalume stress plate.	3" square	OMG, Inc.
6.	Dekfast 15 HS	Insulation fastener for wood, steel and concrete decks		SFS Intec, Inc.
7.	Dekfast Isofast IF-2.375 Plate	Galvalume AZ55 steel plate	2.37" round	SFS Intec, Inc.
8.	Trufast #14 HD Fastener	Insulation fastener for wood, steel and concrete decks		Altenloh, Brinck & Co. U.S., Inc.
9.	Trufast 3" Metal Insulation Plate	Round Galvalume AZ50 steel plate	3" round	Altenloh, Brinck & Co. U.S., Inc.

## **APPROVED SURFACING:**

## TABLE 4

Number	<u>Product</u> <u>Name</u>	<u>Product</u> <u>Description</u>	Application Rate	<b>Specification</b>	<u>Manufacturer</u>
1.	Gravel	To be installed in a flood coat of approved asphalt at 60 lbs/sq	400 lbs/sq	N/A	Generic
2.	Slag	To be installed in a flood coat of approved asphalt at 60 lbs/sq	300 lbs/sq	N/A	Generic



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## **EVIDENCE SUBMITTED:**

<b>Test Agency</b>	<b>Test Name/Report</b>	Report No.	<b>Date</b>
Factory Mutual Research	4470	J.I. 2W7A7.AM	08/04/94
Corporation	4470	J.I. 3001334	02/15/00
•	4470	J.I. 3000857	01/12/00
	4470	J.I. 3004091	01/12/00
Underwriters Laboratory	TAS 114	00NK20869	06/08/00
Trinity   ERD	TAS 114	11752.09.99-1	02/08/00
•	TAS 114	11772.08.00-1	08/14/00
	TAS 114	11757.12.00-1	12/01/00
	TAS 114	11757.04.01-1	04/27/01
	TAS 114	11776.06.02	06/13/02
	TAS 114	11758.08.03	08/11/03
	TAS 114	020843.02.05-1	02/10/05
	TAS 117(B)-ASTM D6862	C8500SC.11.07	11/30/07
	ASTM D 6164 / D 6222	P10490.08.08	08/14/08
	TAS 114 Appendix D	P13770.09.09	09/10/09
PRI Asphalt Technologies	ASTM D6222	PUSA-062-02-01	12/04/07
	ASTM D6163	PUSA-064-02-02	02/27/08



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#### **APPROVED ASSEMBLIES:**

**Deck Type 3I:** Concrete Decks, Insulated

**Deck Description:** 2500 psi structural concrete or concrete plank

System Type A(1): All layers of insulation adhered with approved asphalt. Base sheet and membranes subsequently

adhered to insulation.

#### All General and System limitations apply.

One or more layers of any of the following insulations:

Base Insulation Layer	<b>Insulation Fasteners</b>	<u>Fastener</u>
	<u>(Table 3)</u>	Density/ft <sup>2</sup>
ENRGY-3, ACFoam-II, H-Shield		
Minimum 1.5" thick	N/A	N/A
Top Insulation Layer	Insulation Fasteners (Table 3)	<u>Fastener</u> <u>Density/ft<sup>2</sup></u>
DensDeck		
Minimum <sup>1</sup> / <sub>4</sub> " thick	N/A	N/A
Any approved High Density Wood Fiberboard Minimum ½" thick	N/A	N/A
FescoBoard		
Minimum ¾" thick	N/A	N/A

Note: Concrete deck shall be primed with PG100 Asphalt Primer and allowed to dry prior to application of base sheet. All insulation shall be adhered to the deck in full mopping of approved asphalt within the EVT range and at a rate of 20-40 lbs/100 ft<sup>2</sup>. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate. Composite insulation panels used as a top layer shall be placed with the polyisocyanurate side facing down.

**Base Sheet:** (Optional if using ply sheet in hot asphalt) One or more plies of Modibase, Perma Ply No. 28

adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-

40 lbs./sq.

Ply Sheet: (Optional if using base sheet in hot asphalt) One or more plies of TRI-BUILT APP Smooth torch

applied or one or more plies of Modibase, Perma Ply No. 28, or one or more plies of Type IV or VI ply sheet adhered to the insulation in a full mopping of approved asphalt applied within the

EVT range and at a rate of 20-40 lbs./sq.

**Membrane:** One or more plies of TRI-BUILT APP Smooth, TRI-BUILT APP Granular torch applied or one

ply of TRI-BUILT SBS Granular, torch or hot asphalt applied.

**Surfacing:** (Optional) Install one of the approved surfacing products listed in Table 4 to obtain desired

coating or required fire classification.



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## **Maximum Design**

**Pressure:** -290 psf (for FescoBoard) (See General Limitation #9)

-557.5 psf (for Structodek High Density Wood Fiberboard Roof Insulation) (See General

Limitation #9)

-622.5 psf (for DensDeck) (See General Limitation #9)



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**Deck Description:** 2500 psi structural concrete or concrete plank

System Type A(2): All layers of insulation adhered with approved asphalt. Base sheet and membranes subsequently

adhered to insulation.

#### All General and System limitations apply.

One or more layers of any of the following insulations:

Base Insulation Layer (Optional)	Insulation Fasteners (Table 3)	Fastener Density/ft <sup>2</sup>
ENRGY-3, ACFoam-II, H-Shield Minimum 1.5" thick	N/A	N/A
<b>Top Insulation Layer</b>	Insulation Fasteners (Table 3)	<u>Fastener</u> <u>Density/ft<sup>2</sup></u>
DensDeck Minimum ¼" thick	N/A	N/A
Any approved High Density Wood Fiberboard Minimum ½" thick	N/A	N/A
FescoBoard Minimum 3/4" thick	N/A	N/A

Note: Concrete deck shall be primed with PG100 Asphalt Primer and allowed to dry prior to application of base sheet. All insulation shall be adhered to the deck in full mopping of approved asphalt within the EVT range and at a rate of 20-40 lbs/100 ft<sup>2</sup>. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate. Composite insulation panels used as a top layer shall be placed with the polyisocyanurate side facing down.

**Base Sheet:** (Optional if using ply sheet in hot asphalt) One or more plies of Modibase, Perma Ply No. 28

adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-

40 lbs./sq.

**Ply Sheet:** (Optional if using base sheet in hot asphalt) One or more plies of TRI-BUILT APP Smooth,

torch applied or one or more plies of Modibase, Perma Ply No. 28, or one or more plies of Type IV or VI ply sheet adhered to the insulation in a full mopping of approved asphalt applied within

the EVT range and at a rate of 20-40 lbs./sq.

**Membrane:** One or more plies of TRI-BUILT APP Smooth, TRI-BUILT APP Granular torch applied or one

ply of TRI-BUILT SBS Granular, torch or hot asphalt applied.



NOA No.: 13-0425.11 Expiration Date: 07/13/18 Approval Date: 08/01/13 Page 8 of 24 **Surfacing:** (Optional) Install one of the approved surfacing products listed in Table 4 to obtain desired

coating or required fire classification.

**Maximum Design** 

**Pressure:** -277.5 psf (for FescoBoard) (See General Limitation #9)

-285 psf (for Structodek High Density Wood Fiberboard Roof Insulation) (See General

Limitation #9)

-510 psf (for DensDeck) (See General Limitation #9)



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**Deck Description:** 2500 psi structural concrete or concrete plank

System Type A(3): All layers of insulation adhered with approved asphalt to adhered anchor sheets. Membranes

subsequently adhered to insulation.

All General and System limitations apply.

**Anchor Sheet:** TRI-BUILT SA SBS Base self-adhered on primed concrete deck followed by one ply of TRI-

BUILT APP Smooth, torch applied.

One or more layers of any of the following insulations:

Base Insulation Layer	<u>Insulation Fasteners</u> (Table 3)	<u>Fastener</u> Density/ft <sup>2</sup>
Any approved Polyisocyanurate listed in Table 2	<u>(1 abic 5)</u>	Density/It
Minimum 1.5" thick	N/A	N/A
Top Insulation Layer (Optional)	<u>Insulation Fasteners</u> (Table 3)	<u>Fastener</u> <u>Density/ft<sup>2</sup></u>
DensDeck, DensDeck Prime		
Minimum 1/4" thick	N/A	N/A
Any approved High Density Wood Fiberboard		
Minimum ½" thick	N/A	N/A
FescoBoard		
Minimum 3/4" thick	N/A	N/A

Note: Concrete deck shall be primed with PG100 Asphalt Primer and allowed to dry prior to application of insulation. All insulation shall be adhered to the deck in full mopping of approved asphalt within the EVT range and at a rate of 20-40 lbs/100 ft<sup>2</sup>. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate. Composite insulation panels used as a top layer shall be placed with the polyisocyanurate side facing down.

**Base Sheet:** (Optional if using ply sheet in hot asphalt) One or more plies of Modibase, Perma Ply No. 28

adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-

40 lbs./sq.

**Ply Sheet:** (Optional if using base sheet in hot asphalt) One or more plies of TRI-BUILT APP Smooth or

> one or more plies of Modibase, Perma Ply No. 28, or one or more plies of Type IV or VI ply sheet adhered to the insulation in a full mopping of approved asphalt applied within the EVT

range and at a rate of 20-40 lbs./sq.

Membrane: One ply of TRI-BUILT APP Smooth, TRI-BUILT APP Granular torch applied or one ply TRI-

BUILT SBS Granular torch or hot asphalt applied.



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**Surfacing:** (Optional) Install one of the approved surfacing products listed in Table 4 to obtain desired

coating or required fire classification.

**Maximum Design** 

**Pressure:** -280 psf (See General Limitation #9)



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**Deck Description:** 2500 psi structural concrete or concrete plank

System Type A(4): All layers of insulation adhered with approved adhesive. Membranes subsequently adhered to

insulation.

All General and System limitations apply.

One or more layers of any of the following insulations:

Base Insulation Layer (Optional)	<u>Insulation Fasteners</u> ( <u>Table 3)</u>	<u>Fastener</u> <u>Density/ft<sup>2</sup></u>
ACFoam-II, H-Shield Minimum 2" thick	N/A	N/A
Top Insulation Layer	Insulation Fasteners	<u>Fastener</u>

**SECUROCK Gypsum-Fiber Roof Board** 

Minimum ½" thick N/A N/A

Note: All insulation shall be adhered with Insta-Stick, OlyBond 500, Millennium One Step Foamable Insulation Adhesive, Pourable Adhesive or TITESET Roofing Adhesive or 3M Polyurethane Foam Insulation Adhesive CR-20 in beads/ribbons spaced 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate. Composite insulation panels used as a top layer shall be placed with the polyisocyanurate side facing down.

**Base Sheet:** (Optional if using ply sheet in hot asphalt) One or more plies of TRI-BUILT APP Smooth,

adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-

(Table 3)

40 lbs./sq.

**Ply Sheet:** (Optional if using base sheet in hot asphalt) One or more plies of TRI-BUILT APP Smooth,

adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-

40 lbs./sq.

**Membrane:** One ply of TRI-BUILT APP Granular, TRI-BUILT SBS Granular, torch or hot asphalt applied.

**Surfacing:** (Optional) Install one of the approved surfacing products listed in Table 4 to obtain desired

coating or required fire classification.

**Maximum Design** 

**Pressure:** -442.5 psf (See General Limitation #9)



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Density/ft<sup>2</sup>

**Deck Description:** 2500 psi structural concrete or concrete plank

System Type A(5): All layers of insulation adhered with approved asphalt or adhesive. Membranes subsequently

adhered to insulation.

#### All General and System limitations apply.

One or more layers of any of the following insulations:

Base Insulation Layer (Optional)	<u>Insulation Fasteners</u> (Table 3)	<u>Fastener</u> <u>Density/ft<sup>2</sup></u>
ACFoam-II, H-Shield		
Minimum 2" thick	N/A	N/A
Top Insulation Layer	<u>Insulation Fasteners</u> ( <u>Table 3</u> )	Fastener Density/ft <sup>2</sup>
SECUROCK Gypsum-Fiber Roof Board Minimum '4" thick	N/A	N/A

Note: All insulation shall be adhered to the deck in full mopping of approved asphalt within the EVT range and at a rate of 20-40 lbs/100 ft<sup>2</sup> or OlyBond at a rate of 1 gal/100ft<sup>2</sup>. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate. Composite insulation panels used as a top layer shall be placed with the polyisocyanurate side facing down.

**Base Sheet:** One or more plies of TRI-BUILT APP Smooth, torch applied.

One ply of TRI-BUILT APP Granular, torch applied. **Membrane:** 

**Surfacing:** (Optional) Install one of the approved surfacing products listed in Table 4 to obtain desired

coating or required fire classification.

**Maximum Design** 

**Pressure:** -536.5 psf (See General Limitation #9)



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**Deck Description:** 2500 psi structural concrete or concrete plank

**System Type B:** Base layer of insulation mechanically fastened, top layer adhered with approved asphalt.

Membranes subsequently adhered to insulation.

#### All General and System limitations apply.

One or more layers of any of the following insulations:

Base Insulation Layer	Insulation Fasteners	<u>Fastener</u>
	<u>(Table 3)</u>	<u>Density/ft<sup>2</sup></u>
ENRGY-3, H-Shield		
Minimum 1.5" thick	1 or 8	1:1.33 ft <sup>2</sup>

Note: Base layer shall be mechanically attached with fasteners and density described above. Insulation panels listed are minimum sizes and dimensions; if larger panels are used the number of fasteners per board shall be increased maintaining the same fastener density. See RAS 117 for fastening details.

Top Insulation Layer	<u>Insulation Fasteners</u> ( <u>Table 3)</u>	Fastener Density/ft <sup>2</sup>
Any approved High Density Wood Fiberboard Minimum ½" thick	N/A	N/A
FescoBoard Minimum <sup>3</sup> / <sub>4</sub> " thick	N/A	N/A

Note: Apply top layer of insulation in a full mopping of any approved mopping asphalt within the EVT range and at a rate of 20-40 lbs/100 ft<sup>2</sup>. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as Base Layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate. Composite insulation panels may be used as a top layer placed with the polyisocyanurate side facing down.

**Base Sheet:** (Optional if using ply sheet in hot asphalt) One or more plies of Modibase, Perma Ply No. 28

adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-

40 lbs./sq.

**Ply Sheet:** (Optional if using base sheet in hot asphalt) One or more plies of TRI-BUILT APP Smooth,

Modibase, Perma Ply No. 28or one or more plies of Type IV or VI ply sheet adhered to the insulation in a full mopping of approved asphalt applied within the EVT range and at a rate of

20-40 lbs./sq.

**Membrane:** One ply of TRI-BUILT APP Smooth, TRI-BUILT APP Granular, TRI-BUILT SBS Granular

torch or hot asphalt.



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coating or required fire classification.

**Maximum Design** 

-90 psf; (See general limitation #7.) **Pressure:** 



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**Deck Description:** 2500 psi structural concrete or concrete plank

**System Type C(1):** All layers of insulation are mechanically attached to roof deck. Membranes subsequently

adhered to insulation.

## All General and System limitations apply.

One or more layers of any of the following insulations:

 $\begin{array}{c|cccc} \underline{Insulation\ Layer} & \underline{Insulation\ Fasteners} & \underline{Fastener} \\ & \underline{(Table\ 3)} & \underline{Density/ft^2} \\ \\ \underline{ENRGY-3, H-Shield} & & & & & & \\ \underline{Minimum\ 1.5"\ thick} & & & & & & & \\ & & & & & & & \\ \underline{Insulation\ Fasteners} & & \underline{Fastener} \\ \underline{Density/ft^2} \\ \\ \underline{ENRGY-3, H-Shield} & & & & & \\ \underline{Insulation\ Fasteners} & & \underline{Fastener} \\ \underline{Density/ft^2} \\ \\ \underline{Insulation\ Fasteners} & & \underline{Insulation\ Fasteners} \\ \underline{Density/ft^2} \\ \underline{Insulation\ Fasteners} \\ \underline{Insulation\ Fasteners} \\ \underline{Density/ft^2} \\ \underline{Insulation\ Fasteners} \\ \underline{Insulation\ Fasteners} \\ \underline{Insulation\ Fasteners} \\ \underline{Insulation\ Fasteners} \\ \underline{Density/ft^2} \\ \underline{Insulation\ Fasteners} \\ \underline{Insu$ 

Note: All layers of insulation shall be mechanically attached using the fastener density listed above. The insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners shall be increased maintaining the same fastener density. Insulation fasteners shall be tested for withdrawal resistance in compliance with Testing Application Standard TAS 105 to confirm compliance with the wind load requirements. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

**Base Sheet:** One or more plies of TRI-BUILT SA SBS Base

**Ply Sheet:** (Optional) One or more plies of TRI-BUILT APP Smooth or one or more plies of Modibase,

Perma Ply No. 28 or one or more plies of Type IV or VI ply sheet adhered to the base sheet in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

**Membrane:** One ply of TRI-BUILT APP Smooth, TRI-BUILT APP Granular torch applied or one ply of

TRI-BUILT SBS Granular torch or hot asphalt.

**Surfacing:** (Optional) Install one of the approved surfacing products listed in Table 4 to obtain desired

coating or required fire classification.

**Maximum Design** 

**Pressure:** -82.5 psf; (See General limitation #7.)



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**Deck Description:** 2500 psi structural concrete or concrete plank

All layers of insulation are mechanically attached to roof deck. Membranes subsequently **System Type C(2):** 

adhered to insulation.

## All General and System limitations apply.

One or more layers of any of the following insulations:

Base Insulation Layer	<b>Insulation Fasteners</b>	<b>Fastener</b>
	<u>(Table 3)</u>	Density/ft <sup>2</sup>
Any approved Polyisocyanurate listed in Table 2		
Minimum 1.5" thick	N/A	N/A

Note: All layers shall be simultaneously fastened; see top layer below for fasteners and density. Insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners shall be increased maintaining the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Top Insulation Layer	<b>Insulation Fasteners</b>	<b>Fastener</b>
	<u>(Table 3)</u>	Density/ft <sup>2</sup>
DensDeck, DensDeck Prime, SECUROCK Gypsum-Fiber Roof Boar	'd	
Minimum 1/4" thick	1 or 8	1:1.33 ft <sup>2</sup>
Any approved High Density Wood Fiberboard		
Minimum ½" thick	1 or 8	1:1.33 ft <sup>2</sup>

**Base Sheet:** (Optional if using ply sheet in hot asphalt) One or more plies of Modibase, Perma Ply No. 28

adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-

40 lbs./sq.

**Plv Sheet:** (Optional if using base sheet in hot asphalt) One or more plies of TRI-BUILT APP Smooth torch

> applied or One or more plies of Modibase, Perma Ply No. 28or one or more plies of Type IV or VI ply sheet adhered to the insulation in a full mopping of approved asphalt applied within the

EVT range and at a rate of 20-40 lbs./sq.

One ply of TRI-BUILT APP Smooth, TRI-BUILT APP Granular, TRI-BUILT SBS Granular, Membrane:

torch or hot asphalt applied.

**Surfacing:** (Optional) Install one of the approved surfacing products listed in Table 4 to obtain desired

coating or required fire classification.

**Maximum Design** 

Pressure: -82.5 psf; (See General limitation #7.)



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**Deck Description:** 2500 psi structural concrete or concrete plank

System Type C(3): All layers of insulation are mechanically attached to roof deck. Membranes subsequently

adhered to insulation.

## All General and System limitations apply.

One or more layers of any of the following insulations:

Base Insulation Layer (Optional)	<u>Insulation Fasteners</u> ( <u>Table 3</u> )	<u>Fastener</u> <u>Density/ft<sup>2</sup></u>
Any approved Polyisocyanurate listed in Table 2 Minimum 1.5" thick	N/A	N/A
Top Insulation Layer	<u>Insulation Fasteners</u> ( <u>Table 3</u> )	<u>Fastener</u> <u>Density/ft<sup>2</sup></u>
SECUROCK Gypsum-Fiber Roof Board Minimum 1/2" thick	1	1:1.78 ft <sup>2</sup>

Note: All layers of insulation shall be mechanically attached using the fastener density listed above. The insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners shall be increased maintaining the same fastener density.

**Base Sheet:** (Optional if using ply sheet in hot asphalt) One or more plies of TRI-BUILT APP Smooth,

adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-

40 lbs./sa.

Ply Sheet: (Optional if using base sheet in hot asphalt) One or more plies of TRI-BUILT APP

Smoothadhered in a full mopping of approved asphalt applied within the EVT range and at a rate

of 20-40 lbs./sq.

**Membrane:** One ply of TRI-BUILT APP Granular, TRI-BUILT SBS Granular, torch or hot asphalt applied.

**Surfacing:** (Optional) Install one of the approved surfacing products listed in Table 4 to obtain desired

coating or required fire classification.

**Maximum Design** 

**Pressure:** -75 psf; (See general limitation #7.)



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**Deck Description:** 2500 psi structural concrete or concrete plank

**System Type D(1):** All insulation is loosed laid with preliminary attachment to deck. Base sheet is subsequently

mechanically fastened through insulation to the roof deck.

## All General and System limitations apply.

One or more layers of any of the following insulations:

<u>Insulation Layer</u>	<u>Insulation Fasteners</u> ( <u>Table 3</u> )	<u>Fastener</u> <u>Density/ft²</u>
H-Shield, ACFoam-II, ACFoam-III, ENRGY-3		
Minimum 1.5" thick	N/A	N/A
FescoBoard		
Minimum ¾" thick	N/A	N/A
Any approved High Density Fiberboard, Structodek High I	<b>Density Fiberboard Roof Insulation</b>	
Minimum 1" thick	N/A	N/A

Note: Top layer shall have preliminary attachment, prior to installation of the base sheet, at an application rate of two fasteners per board for insulation boards having no dimension greater than 4 ft., and four fasteners for any insulation board having no dimension greater than 8 ft. All layers of insulation and base sheet shall be simultaneously fastened. See base sheet below for fasteners and density.

**Base Sheet:** One ply of TRI-BUILT APP Smooth mechanically fastened to the deck as described below:

Fastening #1: (TRI-BUILT APP Smooth only) Attach base sheet using Dekfast 14 fasteners with approved

plates spaced 12" o.c. in a minimum 6" wide side lap. The side lap is either torch or hot air

welded closed.

(Maximum Design Pressure -82.5 psf - See General Limitation #7.)

Fastening #2: (TRI-BUILT APP Smooth only) Attach base sheet using SFS Dekfast 15 HS fasteners and

Dekfast Isofast IF-2.375 Plates spaced 12" o.c. in a 5" heat welded side lap.

(Maximum Design Pressure –82.5 psf – See General Limitation #9.)

**Ply Sheet:** None.

**Membrane:** One ply of TRI-BUILT APP Smooth, TRI-BUILT APP Granular torch applied.

**Surfacing:** (Optional) Install one of the approved surfacing products listed in Table 4 to obtain desired

coating or required fire classification.

**Maximum Design** 

**Pressure:** See Fastening Options above



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**Deck Description:** 2500 psi structural concrete or concrete plank

System Type D(2): All insulation is loosed laid with preliminary attachment to deck. Base sheet is subsequently

mechanically fastened through insulation to the roof deck.

#### All General and System limitations apply.

One or more layers of any of the following insulations:

Base Insulation Layer	Insulation Fasteners (Table 3)	<u>Fastener</u> <u>Density/ft<sup>2</sup></u>
Any approved Polyisocyanurate listed in Table 2 Minimum 1" thick	N/A	N/A
Top Insulation Layer (Optional)	Insulation Fasteners (Table 3)	<u>Fastener</u> <u>Density/ft²</u>
FescoBoard		
Minimum ¾" thick	N/A	N/A
Any approved High Density Wood Fiberboard		
Minimum ½" thick	N/A	N/A
DensDeck, DensDeck Prime, SECUROCK Gypsum-Fiber Roof Boar	d	
Minimum 1/4" thick	N/A	N/A

Note: All insulation shall have preliminary attachment, prior to the installation of the roofing membrane at a minimum application rate of two fasteners per board for insulation boards having no dimension greater than 4 ft., and four fasteners for any insulation board having no dimension greater than 8 ft.

**Base Sheet:** One ply of TRI-BUILT APP Smooth fastened to the deck as described below:

**Fastening:** Attach base sheet using SFS Dekfast 14 and Dekfast Galvalume Steel Hex plate or OMG

Roofgrip Fasteners with Flat Bottom Plates spaced 12" o.c. in a 4" lap and 18" o.c. in two

equally spaced staggered rows in the center of the sheet.

Ply Sheet: (Optional) One or more plies of TRI-BUILT APP Smooth torch applied or One or more plies of

Modibase, Perma Ply No. 28 or one or more plies of Type IV or VI ply sheet adhered in full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

**Membrane:** One ply of TRI-BUILT APP Smooth, TRI-BUILT APP Granular torch applied or one ply of

TRI-BUILT SBS Granular torch or hot asphalt applied.

**Surfacing:** (Optional) Install one of the approved surfacing products listed in Table 4 to obtain desired

coating or required fire classification.

**Maximum Design** 

**Pressure:** -112.5 psf; (See General limitation #7.)



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**Deck Description:** 2500 psi structural concrete or concrete plank

System Type D(3): All insulation is loosed laid with preliminary attachment to deck. Base sheet is subsequently

mechanically fastened through insulation to the roof deck.

#### All General and System limitations apply.

One or more layers of any of the following insulations:

Base Insulation Layer	<b>Insulation Fasteners</b>	<u>Fastener</u>
	<u>(Table 3)</u>	<b>Density/ft<sup>2</sup></b>
Any approved Polyisocyanurate listed in Table 2		
Minimum 1" thick	N/A	N/A
Top Insulation Layer (Optional)	Insulation Fasteners (Table 3)	<u>Fastener</u> <u>Density/ft<sup>2</sup></u>
FescoBoard		
Minimum ¾" thick	N/A	N/A
Any approved High Density Wood Fiberboard		
Minimum ½" thick	N/A	N/A
DensDeck, DensDeck Prime, SECUROCK Gypsum-Fiber Roof Boar	·d	
Minimum ¼" thick	N/A	N/A

Note: All insulation shall have preliminary attachment, prior to the installation of the roofing membrane at a minimum application rate of two fasteners per board for insulation boards having no dimension greater than 4 ft., and four fasteners for any insulation board having no dimension greater than 8 ft.

**Base Sheet:** One ply of CertainTeed GlasBase, Firestone MB Base, JM Perma-Ply 28, Tamko Glass Base or

GAFGLAS #75 fastened to the deck as described below:

**Fastening:** Attach base sheet using SFS Dekfast 14 or Dekfast 15 Fasteners and Dekfast Galvalume Steel

Hex Plate or Trufast #14 HD Fastener or Trufast #15 EHD with Trufast 3" Metal Insulation Plates spaced 12" o.c. in a 4" lap and 12" o.c. in two equally spaced staggered rows in the center

of the sheet.

**Ply Sheet:** (Optional) One or more plies of TRI-BUILT APP Smooth or One or more plies of Modibase,

Perma Ply No. 28or one or more plies of Type IV or VI ply sheet adhered in full mopping of

approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

Membrane: One ply of TRI-BUILT APP Smooth, TRI-BUILT APP Granular torch applied or one ply of

TRI-BUILT SBS Granular torch or hot asphalt applied.



NOA No.: 13-0425.11 Expiration Date: 07/13/18 Approval Date: 08/01/13 Page 21 of 24 **Surfacing:** (Optional) Install one of the approved surfacing products listed in Table 4 to obtain desired

coating or required fire classification.

**Maximum Design** 

**Pressure:** -52.5 psf; (See General limitation #7.)



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**Deck Description:** 2500 psi structural concrete or concrete plank

**System Type F(1):** Membranes adhered to roof deck

All General and System Limitations apply.

Note: Concrete deck shall be primed with PG100 Asphalt Primer or Mule-Hide 121 Asphalt Primer and allowed to dry prior to application of base sheet.

**Base Sheet:** (Optional) One or more plies of ASTM D4601 Type II base sheet adhered in a full mopping of

approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

Ply Sheet: (Optional) One or more plies of TRI-BUILT APP Smooth torch applied or One or more plies of

Modibase, Perma Ply #28applied in hot asphalt or one or more plies of ASTM D2178 Type IV

or VI ply sheet adhered in hot asphalt.

Membrane: One ply of TRI-BUILT APP Smooth, TRI-BUILT APP Granular torch applied or one ply of

TRI-BUILT SBS Granular torch or hot asphalt applied.

**Surfacing:** (Optional) Install one of the approved surfacing products listed in Table 4 to obtain desired

coating or required fire classification.

**Maximum Design** 

**Pressure:** -622.5 psf; (See General Limitation #9.)



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### **CONCRETE DECK SYSTEM LIMITATIONS:**

If mechanical attachment to the structural deck through the lightweight insulating concrete is proposed, a field withdrawal resistance testing shall be performed to determine equivalent or enhanced fastener patterns and density. All testing and fastening design shall be in compliance with Testing Application Standard TAS 105 and Roofing Application Standard RAS 117, calculations shall be signed and sealed by a Florida registered Professional Engineer, Registered Architect, or Registered Roof Consultant.

## **GENERAL LIMITATIONS:**

- 1. Fire classification is not part of this acceptance; refer to a current Approved Roofing Materials Directory for fire ratings of this product.
- 2. Insulation may be installed in multiple layers. The first layer shall be attached in compliance with Product Control Approval guidelines. All other layers shall be adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq., or mechanically attached using the fastening pattern of the top layer
- 3. All standard panel sizes are acceptable for mechanical attachment. When applied in approved asphalt, panel size shall be 4' x 4' maximum.
- 4. An overlay and/or recovery board insulation panel is required on all applications over closed cell foam insulations when the base sheet is fully mopped. If no recovery board is used the base sheet shall be applied using spot mopping with approved asphalt, 12" diameter circles, 24" o.c.; or strip mopped 8" ribbons in three rows, one at each side lap and one down the center of the sheet allowing a continuous area of ventilation. Encircling of the strips is not acceptable. A 6" break shall be placed every 12' in each ribbon to allow cross ventilation. Asphalt application of either system shall be at a minimum rate of 12 lbs./sq. Note: Spot attached systems shall be limited to a maximum design pressure of -45 psf.
- 5. Fastener spacing for insulation attachment is based on a Minimum Characteristic Force (F') value of 275 lbf., as tested in compliance with Testing Application Standard TAS 105. If the fastener value, as field-tested, are below 275 lbf. insulation attachment shall not be acceptable.
- 6. Fastener spacing for mechanical attachment of anchor/base sheet or membrane attachment is based on a minimum fastener resistance value in conjunction with the maximum design value listed within a specific system. Should the fastener resistance be less than that required, as determined by the Building Official, a revised fastener spacing, prepared, signed and sealed by a Florida registered Professional Engineer, Registered Architect, or Registered Roof Consultant may be submitted. Said revised fastener spacing shall utilize the withdrawal resistance value taken from Testing Application Standards TAS 105 and calculations in compliance with Roofing Application Standard RAS 117.
- 7. Perimeter and corner areas shall comply with the enhanced uplift pressure requirements of these areas. Fastener densities shall be increased for both insulation and base sheet as calculated in compliance with Roofing Application Standard RAS 117. Calculations prepared, signed and sealed by a Florida registered Professional Engineer, Registered Architect, or Registered Roof Consultant (When this limitation is specifically referred within this NOA, General Limitation #9 will not be applicable.)
- 8. All attachment and sizing of perimeter nailers, metal profile, and/or flashing termination designs shall conform to Roofing Application Standard RAS 111 and applicable wind load requirements.
- 9. The maximum designed pressure limitation listed shall be applicable to all roof pressure zones (i.e. field, perimeters, and corners). Neither rational analysis, nor extrapolation shall be permitted for enhanced fastening at enhanced pressure zones (i.e. perimeters, extended corners and corners). (When this limitation is specifically referred within this NOA, General Limitation #7 will not be applicable.)
- 10. All membranes or packaging shall bear the imprint or identifiable marking of the manufacturer's name or logo and the following statement: "Miami-Dade County Product Control Approved" or the Miami-Dade County Product Control Seal as shown below.

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11. All products listed herein shall have a quality assurance audit in accordance with the Florida Building Code and Rule 9B-72 of the Florida Administrative Code.

## END OF THIS ACCEPTANCE



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